

05-25-05

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PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission 24

Application Number	09/757,738
Filing Date	January 9, 2001
First Named Inventor	BONG, William L.
Art Unit	1725
Examiner Name	KERNS, Kevin P.
Attorney Docket Number	ARC 01.002

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Response to Office Action; Copy of Office Action; Petition for Extension of Time; Return Postcard.
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Virtual Legal, P.C.		
Signature			
Printed name	Michael A. Kerr		
Date	May 23, 2005	Reg. No.	42,722

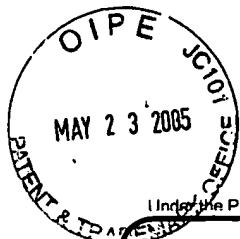
CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	Marie Martin-Kerr	Date	May 23, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (12-04v2)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 510

Complete if Known

Application Number	09/757,738
Filing Date	January 9, 2001
First Named Inventor	BONG, William L.
Examiner Name	KERNS, Kevin P.
Art Unit	1725
Attorney Docket No.	ARC 01.002

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☐ Deposit Account Deposit Account Number: _____ Deposit Account Name: _____

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
Total Claims	Extra Claims	Fee (\$)
- 20 or HP = _____ x _____ = _____		
HP = highest number of total claims paid for, if greater than 20.		
Indep. Claims	Extra Claims	Fee (\$)
- 3 or HP = _____ x _____ = _____		
HP = highest number of independent claims paid for, if greater than 3.		

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 = _____	/ 50 = _____	(round up to a whole number) x _____	= _____	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)	Fees Paid (\$)
Other (e.g., late filing surcharge): Petition for Extension of Time - 3 months	\$510.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 42,722	Telephone 775-841-3388
Name (Print/Type)	Michael A. Kerr	Date May 23, 2005	

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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MAY 23 2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/757,738

01/09/2001

William L. Bong

ARC 01.002

7735

7590

11/23/2004

MICHAEL A. KERR
VIRTUAL LEGAL
777 E. WILLIAM STREET.
SUITE 211
CARSON CITY, NV 89701

EXAMINER

KERNS, KEVIN P

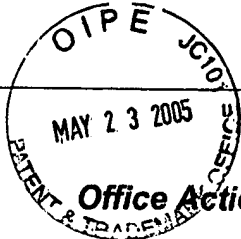
ART UNIT

PAPER NUMBER

1725

DATE MAILED: 11/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary

Application No.	Applicant(s)	
09/757,738	BONG, WILLIAM L.	
Examiner	Art Unit	
Kevin P. Kerns	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 1,9 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2002 and 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors (grammatical, typographical, and idiomatic).

Cooperation of the applicant is requested in correcting any errors of which the applicant may become aware of in the specification, in the claims, and in any future amendment(s) that the applicant may file. As examples, on page 15, 8th line, "limitaiton" should be changed to "limitation". Also, on page 18, lines 11-13, these two sentences should be combined, and "to" should be changed to "too" in line 12.

Claim Objections

2. Claims 1, 9, and 13 are objected to because of the following informalities: in the 3rd line from the end of each claim, "insulators" should be changed to "insulator modules" to obtain proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burden (US 3,243,568) in view of Wada et al. (US 4,208,564), and further in view of Saito et al. (JP 3-297587).

Burden discloses an electric welding process and apparatus for electrosag welding, in which an insulated consumable guide tube is comprised of elongated strips 41 and 42 (with front and back faces) and has plural longitudinal channels to receive welding wires (column 1, lines 11-14 and 53-72; column 2, lines 1-72; column 3, lines 1-25 and 54-71; column 4, lines 1-29; and Figures 1-10). The guide tubes would selectively be bare or given an insulating coating of slag forming material, and are selected in a plurality of arrangements in terms of dimensions and geometries, which are illustrated in Figures 5 and 10, and would furthermore be selected as representatives of routine choices by one of ordinary skill in the art depending on welding conditions (column 4, lines 25-28; and Figures 5-10). The triangular shape limitation of claim 6 is considered to be representative of an arbitrary choice for the shape of the electrode guide cross section shown in Figure 9. Burden does not disclose the plural insulator modules, with at least one of the plural insulator modules configured to melt into a molten flux puddle.

However, Wada et al. disclose a nozzle structure of electrosag welding machines, in which nozzle plate 117 contains a plurality of insulator modules 120 (of varying numbers and heights, as shown in Figure 5), for the purpose of preventing a short circuit in the weld gap between the nozzle plate 117 and the surfaces of the

planks to be welded (abstract; column 1, lines 9-13 and 53-68; column 2, lines 1-9; column 3, lines 39-52; and Figures 1-5).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the electric welding process and apparatus for electroslog welding, as disclosed by Burden, by adding the plurality of insulator modules, as taught by Wada et al., in order to prevent a short circuit in the weld gap between the nozzle plate 117 and the surfaces of the planks to be welded (Wada et al.; column 3, lines 39-50).

Neither Burden nor Wada et al. discloses that at least one of the plural insulator modules is configured to melt into a molten flux puddle.

However, Saito et al. disclose an assembly comprising a flux ring and consumable nozzle for preventing swing in electroslog welding, in which the assembly includes a consumable nozzle 24 positioned between base materials (10,12), and a flux ring (26,40) that includes an insulating spacer (46,54) with projections 58 (insulator module assembly) for centering of the consumable nozzle 24, with at least the flux ring (26,40) portion of the insulating spacer assembly being configured to melt into a molten flux puddle 33, for the purpose of preventing melting imbalance between the base materials (abstract; and Figures 1-15).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the electric welding process and apparatus for electroslog welding, as disclosed by Burden, by adding the plurality of insulator modules, as taught by Wada et al., in order to prevent a short circuit in the weld gap

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between the nozzle plate 117 and the surfaces of the planks to be welded, and by further using at least one of the plural insulator modules configured to melt into a molten flux puddle, as disclosed by Saito et al., in order to prevent melting imbalance between the base materials (Saito et al.; abstract).

Response to Arguments

5. The examiner acknowledges the applicant's amendment provided with the request for continued examination received by the USPTO on November 5, 2004. The applicant has overcome the prior claim objection. However, new minor objections to the specification and claims were found upon further review of the application. Claims 1-20 remain under consideration in the application.

6. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

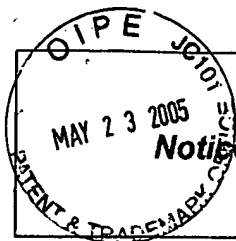
Art Unit: 1725

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin P. Kerns *Kevin Kerns 11/18/04*
Examiner
Art Unit 1725

KPK
kpk
November 18, 2004



Notice of References Cited

Application/Control No.

09/757,738

Applicant(s)/Patent Under

Reexamination
BONG, WILLIAM L.

Examiner

Kevin P. Kerns

Art Unit

1725

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-3,243,568	03-1966	Burden	219/73.1
*	B	US-4,208,564	06-1980	Wada et al.	219/73.1
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	JP 3-297587	12-1991	Japan	Saito et al.	B23K 25/00
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.